Patent Claims

1.   Method for the non-instrument-dependent determination of the coordinates of a point (P) imaged using a microscope, wherein first of all, at given object-related reference coordinates (X_1, Y_1, Z_1) of at least one reference point (E_1) in a DICOM coordinate system, the relevant instrument coordinates (x_1, y_1, z_1) of the minimum of one imaged reference point (E_1) in an instrument-dependent coordinate system are determined and from them a transformation rule (Φ) for converting instrument-dependent coordinates (x, y, z) into the coordinates (X, Y, Z) of the DICOM coordinate system is obtained, and subsequently, for non-instrument-dependent coordinate determination, the instrument coordinates (x_p, y_p, z_p) of an imaged point (P) are converted by means of the transformation rule (Φ) discovered into non-instrument-dependent coordinates (X_p, Y_p, Z_p) of the DICOM coordinate system.

2.   Method according to claim 1, characterised in that a calibration slide is used to preset reference coordinates (X_1, Y_1, Z_1) of one or more reference points (E_1).

3.   Method according to claim 2, characterised in that a calibration slide is produced and/or used for each particular type of slide.

4.   Method according to one of claims 1 to 3, characterised in that overdetermined affine transformation is used to determine the transformation rule, particularly for the (x, y) coordinates.

5.   Method according to one of claims 1 to 4, characterised in that averaging and/or an approach in the form of an inclined plane is used to determine the transformation rule, particularly for the z coordinates.

6.   Calibration slide for use in a method according to one of claims 1 to 5, having at least one reference point (E_1) with preset reference coordinates (X_1, Y_1, Z_1) in a DICOM coordinate system.

7.   Calibration slide according to claim 6, which corresponds in shape and size to a known type of slide.

8.   Use of a calibration slide according to one of claims 6 to 7 for a method according to one of claims 1 to 5.

9.   System for non-instrument-dependent determination of coordinates of a point (P) to be imaged using a microscope, the microscope comprising a unit (4) for determining instrument coordinates (x_p, y_p, z_p) of an imaged point (P), while a computer unit is provided which calculates, from the instrument coordinates (x_1, y_1, z_1) of at least one imaged reference point (E_1) and associated predetermined object-related reference coordinates (X_1, Y_1, Z_1) in a DICOM coordinate system, a transformation rule (Φ) for converting instrument-dependent coordinates (x, y, z) into coordinates (X, Y, Z) of the DICOM coordinate system.

10.   System according to claim 9, wherein the computer unit is configured so that it calculates from the coordinates (x_p, y_p, z_p) of an imaged point (P), using the transformation rule (Φ) obtained, the corresponding coordinates (X_p, Y_p, Z_p) in the non-instrument-dependent DICOM coordinate system.

11.   Computer program with program coding means, for carrying out a method according to at least one of claims 1 to 5, when the computer program is executed on a computer or a corresponding computer unit, particularly the computer unit in a system according to claim 9.

12.   Computer program product with program coding means which are stored on a computer-readable data carrier, for carrying out a method according to at least one of claims 1 to 5, when the computer program product is executed on a computer or a corresponding computer unit, particularly the computer unit in a system according to claim 9.